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The Lepidoptera names of Denis & Schiffermüller – a case for stability

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In their 'Wiener Verzeichnis', first published in 1775, Denis & Schiffermüller discussed the Lepidoptera of the Vienna district and newly proposed scientific names for nearly 700 species. In the past, several workers (for example Lempke, 1952) have argued that some of Denis & Schiffermüller's names are nomina nuda and thus unavailable under the *International Code of Zoological Nomenclature*, but most of the names have always been treated as available ; after 200 years of uninterrupted use it is clearly in the interest of stability to continue this practice. In two recent publications Koçak (1982-84) and von Mentzer (1984) query, from different aspects, the status of certain Denis & Schiffermüller names. If their views are accepted, a large number of established names or at least their authorships would have to be changed, thus affecting some of the commonest and best known European moths.

Koçak considers certain Denis & Schiffermüller names as nomina nuda because, in his opinion, they are not accompanied by a 'description, indication or reference'. He cited as an example *Lobesia botrana*, proposed by Denis & Schiffermüller as follows : 26. Weintraubenw. R. (Botri.) Weintraubenw. – *T. Botrana*'.

On its own 'Weintraubenwickler' as a vernacular name does not constitute an indication, nor does the mention of the host-plant of the larva (Botri – grapes). This entry in itself would therefore not make the name *botrana* nomenclaturally available ; however, it must not be taken in isolation. Denis & Schiffermüller arranged the species in the form of a key and for *botrana* as a member of the Abtheilung Tortrices the following (translated) description applies : 'The larvae of this *Abtheilung* have 16 feet, are small, slender, mostly green, set with few hairs, and very lively. They dwell in rolled or tied leaves which they eat from within. [A footnote indicated at this point gives a further discussion on tortricid larval habits]. At rest the tortricid moths have drooping wings with curved outer margin and truncate lower margin'. To this must be added the description

of group E 'grey tortricid moth' and finally the host-plant of the larva 'grapes'. We believe that such a combined description fulfils the requirements of the *Code* and thus makes the name *Tortrix botrana* and all other similarly proposed DENIS & SCHIFFERMÜLLER names nomenclaturally available.

The object of the *Code*, according to its Preamble, is to promote stability and universality of scientific names of animals. It follows from this that the provisions of the *Code* should be interpreted in favour of stability. We consider KOÇAK's interpretation of articles 12 and 16 to be unnecessarily restrictive and his conclusions to conflict with the interest of stability. We therefore recommend that authors should continue the established practice and not reject as nomina nuda DENIS & SCHIFFERMÜLLER names that are currently considered to be valid by the majority of lepidopterists. To treat as nomenclaturally unavailable those names that are currently placed as junior subjective synonyms would also be undesirable as it would adversely affect certain cases of homonymy.

LINNAEUS (1758) divided the Lepidoptera into the genera *Papilio, Sphinx* and *Phalaena* ; he subdivided *Phalaena* into *Bombyx, Noctua, Geometra, Tortrix, Pyralis, Tinea* and *Alucita*, but did not propose a term for such 'subgeneric' categories. The original combinations of his species were usually cited as, for example, *Phalaena (Tinea) rhomboidella* LINNAEUS, in which *Phalaena* is treated as a genus with *Tinea* as a subgenus. This practice was validated by the International Commission on Zoological Nomenclature in Opinion 450.

DENIS & SCHIFFERMÜLLER followed Linnaeus in dividing the Lepidoptera into *Sphinx*, *Phalaena* and *Papilio* ('Genus' or 'Gattung') and subdividing *Phalaena* into *Bombyx, Noctua, Geometra, Pyralis, Tortrix, Tinea* and *Alucita* ('Abtheilung'). Almost all subsequent authors, including SHERBORN in his monumental *Index Animalium*, have accepted the 'Abtheilungen' as genera, citing the original combinations as, for example, *Tinea verbascella* [DENIS & SCHIFFERMÜLLER]. This usage has continued up to the present, although many Lepidoptera taxonomists were aware of their inconsistency in treating a category in DENIS & SCHIFFERMÜLLER's work as generic while treating the same category in the work of LINNAEUS as subgeneric.

Recently VON MENTZER (1984) called attention to this discrepancy and advocated lowering DENIS & SCHIFFERMÜLLER's 'Abtheilungen' *Bombyx, Noctua* etc. to subgenetic rank under *Phalaena*, analogous to the Linnaean subgenera. If VON MENTZER's proposal is adopted, the original combinations of nearly 600 species-group names proposed by DENIS & SCHIFFERMÜLLER would have to be altered (for example, *Tinea verbascella* would

become *Phalaena verbascella*), resulting in a series of new primary homonyms. Moreover, a number of names currently rejected as junior primary homonyms would have to be brought back into use. E. von Mentzer discussed 25 resultant changes of currently valid names in the Bombycoidea, Noctuoidea and Geometroidea ; amongst the species affected are such well-known European moths as *Saturnia pyri* ([Denis & Schiffermüller]), which would then become *Saturnia ilvana* Tauber, 1969.

If accepted, von Mentzer's proposal has serious consequences and, in the interest of stability, an application should be made to the Commission to rule that the names of Denis & Schiffermüller are to be treated as having been originally combined with *Bombyx, Noctua* etc., which have been generally accepted as genera for 200 years. In the meantime current usage should continue.

E. von Mentzer erroneously claims that all Denis & Schiffermüller names, except eight species discussed in detail in chapter 9, lack descriptions and thus are nomina nuda under the *Code*. Most species-names are accompanied by a brief description that in itself fulfils the requirements of the *Code*, and we have shown above that even those names that are merely accompanied by the name of the host-plant of the larva can be considered as nomenclaturally available. His (translated) statement that 'Recognition of the new species names of the Wiener Verzeichnis means in practice that the subsequent descriptions [by Fabricius, Borkhausen, Brahm etc.] have the status of neotypes' is also incorrect ; the 'type' of a species is always an actual specimen, never a description.

In view of the far-reaching consequences of Koçak's and von Mentzer's proposals we strongly recommend that lepidopterists do not introduce such major changes into the literature without extensive prior consultation. Matters of that nature should be widely distributed as a manuscript for discussion amongst specialists, and publication should be deferred until an attempt has been made to reach general agreement.

A draft of this paper has been sent to a number of lepidopterists for comment ; general agreement with our views was expressed by our colleagues at the British Museum (Natural History) Dr. J. D. Bradley (C.I.E.), Mr. D. S. Fletcher, Dr. I. W. B. Nye and Dr. G. S. Robinson, also by Mr. O. Karsholt and Dr. N. P. Kristensen, Copenhagen, Dr. B. J. Lempke, Amsterdam, Mr P. Leraut, Bonneuil-sur-Marne, and Prof. Dr. C. Naumann, Bielefeld. Dissenting views on some points were received from Mr E. von Mentzer, Täby, and were considered (although not fully accepted) in this paper.

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